

**DETAILED ACTION**

***Election/Restrictions***

- I. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1, 12, 17, and 21, drawn to head-end unit system, classified in class 370, subclass 401.
  - II. Claim 2, drawn to hardware addressing, classified in class 370, subclass 389.
  - III. Claim 3, drawn to full-duplex communication, classified in class 370, subclass 294.
  - IV. Claim 4, drawn to channel allocation, classified in class 370, subclass 437.
  - V. Claim 5, drawn to channel identity, classified in class 370, subclass 498.
  - VI. Claim 6, drawn to bandwidth management, classified in class 370, subclass 230.
  - VII. Claim 7, drawn to bandwidth optimization, classified in class 370, subclass 235.
  - VIII. Claim 8, drawn to time slot management, classified in class 370, subclass 468.
  - IX. Claim 9, drawn to capacity control, classified in class 370, subclass 477.
  - X. Claim 10, drawn to transmission control, classified in class 370, subclass 412.
  - XI. Claim 11, drawn to broadcasting, classified in class 370, subclass 432.
  - XII. Claim 13, drawn to frame discarding, classified in class 370, subclass 469.
  - XIII. Claim 14, drawn to flow control, classified in class 370, subclass 230.1.
  - XIV. Claim 15, drawn to collision prevention, classified in class 370, subclass 445.
  - XV. Claim 16, drawn to device registration, classified in class 370, subclass 395.2.

XVI. Claim 18, drawn to dynamic resource allocation, classified in class 370, subclass 395.41.

XVII. Claim 19, drawn to multiprotocol frame support, classified in class 370, subclass 466.

XVIII. Claim 20, drawn to frame format, classified in class 370, subclass 471.

2. The inventions are distinct, each from the other because of the following reasons:

Inventions I-XVIII are directed to related products. The related inventions are distinct if:

(1) the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect; (2) the inventions do not overlap in scope, i.e., are mutually exclusive; and (3) the inventions as claimed are not obvious variants.

See MPEP § 806.05(j). In the instant case, the inventions as claimed can have a materially different mode of operation, for example, invention IV may be used in a wireless communication system, a wired communication system or any subsequent combination. In addition, the inventions do not overlap in scope, for example, invention I is drawn to a head-end unit while invention IV is drawn to channel allocation. Furthermore, the inventions as claimed do not encompass overlapping subject matter and there is nothing of record to show them to be obvious variants.

3. Restriction for examination purposes as indicated is proper because all these inventions listed in this action are independent or distinct for the reasons given above and there would be a

serious search and examination burden if restriction were not required because one or more of the following reasons apply:

- (a) the inventions have acquired a separate status in the art in view of their different classification;
- (b) the inventions have acquired a separate status in the art due to their recognized divergent subject matter;
- (c) the inventions require a different field of search (for example, searching different classes/subclasses or electronic resources, or employing different search queries);
- (d) the prior art applicable to one invention would not likely be applicable to another invention;
- (e) the inventions are likely to raise different non-prior art issues under 35 U.S.C. 101 and/or 35 U.S.C. 112, first paragraph.

**Applicant is advised that the reply to this requirement to be complete must include (i) an election of a invention to be examined even though the requirement may be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.**

The election of an invention may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse. Traversal must be presented at the time of election in order to be considered timely. Failure to timely traverse the requirement will result in the loss of right to petition under 37 CFR 1.144. If claims are added after the election, applicant must indicate which of these claims are readable on the elected invention.

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Should applicant traverse on the ground that the inventions are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

4. During a telephone conversation with Louis Sickles on 19 June 2008 a provisional election was made without traverse to prosecute the invention of channel identity, claim 5. Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-4 and 6-21 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

#### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claim 5 is rejected under 35 U.S.C. 102(e) as being anticipated by Wilson (2002/0184649 A1).

Regarding claim 5, Wilson discloses a system and method for allocating packet identifiers in a transport stream in a subscriber network, which comprises:

*The bandwidth of the downstream communication channel may be identical or different from the bandwidth of the upstream communication channel* (Referring to Figure 1, the transmission medium between the headend **102** and the content providers can be two-way, which is either identical or different from the bandwidth of the upstream and downstream communication channels. See paragraph 0031.)

### ***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DONALD L. MILLS whose telephone number is (571)272-3094. The examiner can normally be reached on 9:00 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Donald L Mills/  
Primary Examiner, Art Unit 2616